

In the Claims:

Please amend the claims as follows:

1 - 11. (Cancel)

12. (Original) A method of fabricating a metal-insulator-metal (MIM) capacitor, the method comprising the steps of:

providing a first substrate layer with a feature formed therein, the first substrate layer having a top surface, the feature having sidewalls and a bottom;

forming an encapsulated metal structure in the feature, where the sidewalls and bottom of the feature are covered by a first barrier layer and the feature is filled with metal covered by an additional barrier layer in contact with the first barrier layer;

depositing a second substrate layer on the top surface of the first substrate layer and overlying the encapsulated metal structure;

forming an opening in the second substrate layer to expose the encapsulated metal structure;

depositing a dielectric layer on the second substrate layer, covering sidewalls of the opening and the exposed encapsulated metal structure at a bottom of the opening;

depositing an additional layer to cover the dielectric layer on the sidewalls and on the bottom of the opening and to fill the opening; and

planarizing the dielectric layer and the additional layer.

13. (Original) A method of fabricating a MIM capacitor according to claim 12, wherein said step of forming an encapsulated metal structure comprises:

depositing the first barrier layer on the top surface of the substrate and on the sidewalls and bottom of the feature;

filling the feature with metal;

forming a recess in the metal, so that a top surface of the metal is lower than the top surface of the substrate;

depositing the additional barrier layer to cover the top surface of the metal and contact the first barrier layer; and

planarizing the additional barrier layer.

14. (Original) A method of fabricating a MIM capacitor according to claim 13, wherein the steps of forming a recess in the metal, depositing the additional barrier layer and planarizing the additional barrier layer are repeated so that, after a final barrier layer is planarized, the top surface of the substrate is exposed and the metal is encapsulated by the first barrier layer and at least one additional barrier layer including the final barrier layer.

15. (Original) A method of fabricating a MIM capacitor according to claim 13, wherein the steps of forming a recess in the metal and said planarizing steps are performed by chemical-mechanical polishing (CMP).

16. (Original) A method of fabricating a MIM capacitor according to claim 12, wherein said step of planarizing the dielectric layer and the additional layer removes the dielectric layer and the additional layer from a top surface of the second substrate layer, so that the top surface of the second substrate layer is exposed, and a remaining portion of the dielectric layer and a remaining portion of the additional layer are disposed in the opening.

17 - 25. (Cancel)